

CLAIMS

What is claimed is:

1. A system for performing multiple protocol analysis, comprising:
 - at least one protocol-specific dynamic link library to analyze at least one
5 protocol;
 - a default dynamic link library to analyze a different protocol that does not
correspond to said at least one protocol-specific dynamic link library; and
 - an application program interface (API) managing said at least one protocol-
specific dynamic link library and said default dynamic link library to perform multiple
10 protocol analyses.
2. The system according to Claim 1, wherein analyzing said at least one protocol includes
decoding and filtering.
3. The system according to Claim 1, wherein said at least one protocols are used for data
transport.
- 15 4. The system according to Claim 1, wherein said application program interface is a
dynamic link library.
5. The system according to Claim 1, further including means for enabling an addition
of another protocol-specific dynamic link library to analyze an additional protocol.
6. The system according to Claim 1, wherein an application external from the system
20 and in communication with the system uses said protocol-specific dynamic link
library to read a specific protocol, without the application managing or reading the
protocol.

7. The system according to Claim 1, wherein the system includes a module applying common screen formatting across different protocols to display results of at least one analysis.
8. A system according to Claim 7, wherein the results are displayed in a grid having rows and columns.
9. A system according to Claim 8, further including a decoded message cache to store the results in the grid for later retrieval.
10. The system according to Claim 9, wherein said decoded message cache receives multiple requests for a subset of results in the grid.
11. The system according to Claim 1, further comprising at least one dialog display coupled to said application program interface to receive a selection of filtering parameters from a user.
12. The system according to Claim 11, wherein said at least one dialog display corresponds to a respective protocol.
13. The system according to Claim 1, wherein the application program interface accepts application-specific formatting processes supplied from an external application, wherein the processes affect decoded output values for selected protocol fields resulting from the protocol analysis by a respective library.

14. A method for performing multiple protocol analysis, comprising:
 providing at least one protocol-specific link library;
 providing a default dynamic link library;
 using one of the dynamic link libraries, analyzing at least one protocol to
5 decode and filter said at least one protocol; and
 managing said at least one protocol-specific dynamic link library and said
default dynamic link library to perform multiple protocol analyses.
15. The method according to Claim 14, wherein analyzing said at least one protocol
includes decoding and filtering.
- 10 16. The method according to Claim 14, wherein said at least one protocol is used for
data transport.
17. The method according to Claim 14, wherein managing said at least one dynamic
link library includes employing an application program interface (API).
18. The method according to Claim 14, further including enabling another protocol-
15 specific dynamic link library for analyzing an additional protocol.
19. The method according to Claim 14, further including enabling a protocol-specific
dynamic link library to be used by an external system for reading a specific
protocol.
20. The method according to Claim 14, further including applying formatting across
20 different protocols to display results of at least one analysis.
21. The method according to Claim 20, further including displaying the results in a
grid having rows and columns.

22. The method according to Claim 21, further including storing the results in the grid in a decoded message cash for later retrieval.
23. The method according to Claim 22, further including receiving multiple requests for a subset of results in the grid.
- 5 24. The method according to Claim 14, further including receiving a selection of filtering parameters from a user.
25. The method according to Claim 24, wherein the filtering parameters correspond to a respective protocol.
- 10 26. The method according to Claim 14, further including accepting application-specific formatting processes supplied from an external application, wherein the processes affect decoded output values for selected protocol fields resulting from the protocol analysis by a respective library.
- 15 27. An apparatus for performing multiple protocol analysis, comprising:
means for determining whether a protocol is a default protocol or a specific protocol;
based on the results of the determination, means for analyzing the protocol by using a default dynamic link library or a protocol-specific dynamic link library; and
means for managing said at least one protocol-specific dynamic link library and said default dynamic link library to perform multiple protocol analyses.

28. An apparatus for performing multiple protocol analysis, comprising:

an application program interface to receive a message having network data of a default protocol or a specific protocol and to return a processed representation of the network data;

- 5 a default dynamic link library in communication with and managed by the application program interface to receive the network data from the application program interface if the network data is of the default protocol and to process the network data for the application program interface; and

- 10 at least one protocol-specific dynamic link library also in communication with the application program interface to receive the network data from the application program interface if the network data is of the specific protocol and to process the network data for the application program interface.

- 15 29. A computer-readable medium having stored thereon sequences of instructions, the sequences of instructions including instructions, when executed by a digital processor, causes the processor to perform:

- providing at least one protocol-specific link library;
- providing a default dynamic link library;
- 20 using one of the dynamic link libraries, analyzing at least one protocol to decode and filter said at least one protocol; and
- managing said at least one protocol-specific dynamic link library and said default dynamic link library to perform multiple protocol analyses.

30. A method for performing multiple protocol analysis, comprising:
- receiving a protocol decode request having captured network data from an external application;
 - determining whether the network data requires a given protocol specific library function to decode the network data;
 - if the given protocol specific library function is not available, loading the given protocol specific library function to decode the network data; and
 - transmitting a decoded representation of the network data to the external application.
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